DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: **PPG Industries, Inc.**
Facility Address: **125 Colfax Street, Springdale, PA 15144**
Facility EPA ID #: **PAD 00 433 6319**

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

__X__ If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

_____ if data are not available skip to #6 and enter"IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"** [1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	___	**_X__**	___	Above MCL concentrations for TCE detected at onsite production wells are from offsite sources.
Air (indoors)	___	**_X_**	___	Institutional controls are in place.
Surface Soil (e.g., <2 ft)	**_X__**	___	___	Soil borings at the former landfill show elevated concentrations of heavy metals.
Surface Water	___	**_X_**	___	Minor intermittent releases to the Allegheny River were addressed promptly and do not pose significant risks to human health and the environment.
Sediment	___	**_X_**	___	
Subsurf. Soil (e.g., >2 ft)	**_X_**	___	___	Soil borings at the former landfill show elevated concentrations of heavy metals.
Air (outdoors)	___	**_X_**	___	Institutional controls are in place.

_____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

__**X**__ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

_____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Groundwater:

Currently there is no known or reasonably suspected groundwater contamination by the Facility. An investigation under the supervision of the Pennsylvania Department of Environmental Protection Agency indicates that detections of trichloroethylene (5-7 ug/L) at the onsite production wells are from off-site sources. The Springdale Municipal Water Company operates a groundwater treatment system to treat the groundwater before distribution to the local residents. (EI Report 1/2000, NUS Site Inspection Report 9/19/91)

Surface Soil (e.g., <2 ft) and Subsurf. Soil (e.g., >2 ft):

Notable concentrations of arsenic in soil have been detected near the location of the distribution warehouse that overlies the former landfill. The arsenic concentrations are in the range of 14 - 45 mg/kg. The regulatory limit for arsenic in soil is 3.8 mg/kg. Because the area is covered by concrete and asphalt, the concrete and asphalt cover serves as a remedial cap to prevent human exposures and rainfall infiltration to the soil. (EI Report 1/2000, NUS Site Inspection Report 9/19/91)

Surface water:

Currently there is no known or reasonably suspected contamination to the surface water. Non-contact cooling water is discharged from the Facility via an NPDES outfall to the Allegheny River. Although in the past there have been releases into the Allegheny River via the NPDES permitted outfall, the releases were considered minor and remediated promptly by the Facility. Therefore, the minor releases posed no significant risks to human health or the environment. (EI Report 1/2000, NUS Site Inspection Report 9/19/91)

Sediment:

Currently there is no known or reasonably suspected contamination to the sediment from any of the areas at the Facility. (EI Report 1/2000)

Air (indoors) and Air (outdoors):

Currently there is no known or reasonably suspected contamination to either outdoor air or indoor air from any of the areas at the Facility. The Facility employs a ventilation system that connects to the thermal oxidation unit (TOU) to control emissions of volatile organic compounds. The unit consists of a backup activated carbon filter system. (EI Report 1/2000)

Footnotes:

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table
Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	___	___	___	___			___
Air (indoors)	___	___	___				
Soil (surface, e.g., <2 ft)	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Surface Water	___	___			___	___	___
Sediment	___	___		___	___	___	
Soil (subsurface e.g., >2 ft)			**No**			**No**	
Air (outdoors)	___	___	___	___	___		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

__X _ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

_____ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale and Reference(s):

Arsenic in soil have been detected near the location of the distribution warehouse that overlies the former landfill. The arsenic concentrations are in the range of 14 - 45 mg/kg in soil. Because the area is covered by concrete and asphalt, the concrete and asphalt cover serves as a remedial cap to prevent human exposures and rainfall infiltration to the soil. (EI Report 1/2000, NUS Site Inspection Report 9/19/91)

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

   _____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

   _____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

   Rationale and Reference(s):_____

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

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5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s):_____

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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__**X** _ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **PPG Industries, Inc.** facility EPA ID # **PAD 00 433 6319**, located at **125 Colfax Street, Springdale, PA 15144** under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

_____ IN - More information is needed to make a determination.

Completed by (signature) _____ Date 09-21-00
(print) Khai M. Dao
(title) Remedial Project Manager

Supervisor (signature) _____ Date 09-21-00
(print) Paul Gotthold
(title) PA. Operations Branch Chief
(EPA Region or State) EPA, Region 3

Locations where References may be found:

US EPA
Region III
Waste and Chemcial Mgmt. Division
1650 Arch Street
Philadelphia, PA 19103

Contact telephone number and email:

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FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.